

SPECIFICATION

Please amend paragraph [0027] as follows.

**[0027]** Fig. 2: Input mixture 1 that consists of propane and water vapour is fed to dehydration step 4 where part of the propane reacts to form propylene. Liquid phase water 15 and water vapour 16 are added to reaction mixture 5, which permits a precise adjustment of the ratio of water vapour and hydrocarbons in dehydration step 8. Mixture 7 is fed to dehydration step 8, oxygen-rich air 9 being admixed directly before the catalyst bed of said step. Product mixture ~~U17U~~ 17 thus obtained is piped to the downstream units for treatment. A standard dehydration catalyst is employed in all dehydration steps.